wardly when the covers are inserted over the microplates. The projects are thus outbound of the surface of the covers and would not register with apertures in the top surfaces.

Accordingly we submit that claim 1 is allowable over the references of record as are dependent claims 2, 3, 6, 11 and 12.

Claim 11 is also distinguishable for the reason in connection with claim 13 discussed below. New claim 13 is derived from canceled claim 4. It specifies that the cover include a central, longitudinally extending flat portion that bears on the pressure plate, with planar side portions extending upwardly from the flat portion so as to provide the compressive forces set forth in the claim.

In the rejection of claim 4, the Examiner cited Warner et al., which discloses compressible ridges on the bottom surface of a flexible sealing pad, these ridges being used to seal the wells in an underlying microplate. Contrary to the Examiner's contention we see no reason why it would have been obvious to provide a ridge on the top side of the rigid cover plate 34 of the reference.

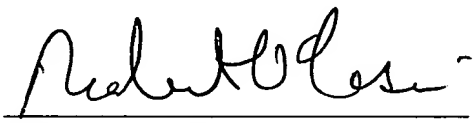
In any case the cover defined in claim 13 provides a spring mechanism by which the underlying pad is compressed against a microplate. Specifically, the cover includes an angled top surface having a central, longitudinally extending flat portion that bears on the underlying pressure plate. The sides of the cover include flanges that extend inwardly beneath the microplate. With this arrangement the cover provides both the compressive force and the resilience that seals the wells in the microplate. By providng an elastic compression force in the form of a steel spring external to the gasket pad, the invention can accommodate a much greater variation n microplate thickness. Warner et al. discloses a pressure plate but does not disclose or suggest a cover that provides a unitary,

self-contained package that includes a sealed microplate. Moring et al. describes a self-contained package. However, that reference relies on the compressibility of the gasket layer to provide the requisite compressive force. The unit defined in claim 13 separates the spring function from the gasketing function and thus can use a steel spring to exert the desired force. This concept is neither disclosed nor suggested by any of the references of record and we therefore submit that claim 13 is allowable, as is dependant claim 4.

For the foregoing reasons, we submit that the application as in condition for allowance.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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MARK-UP PAGES FOR THE APRIL 25, 2002, AMENDMENT TO U.S. PATENT APPLICATION SER. NO. 09/740,624

The replacement for claim 1 resulted from the following changes:

1. (Amended) A cover assembly for a microplate, said assembly comprising:

a layer of material shaped and dimensioned to removably seal a plurality of a microplate's well openings;

a pressure plate disposed on said layer of material for dispersing a compressive force in a generally uniform manner across said layer; ~~and~~

a cover having a top and first and second sides, said top shaped so as to generate said compressive force when said cover is engaged with said microplate, said first and second sides each including a ~~flange~~ ledge for supporting a bottom edge of said microplate~~.~~ ;

a plurality of vertical tabs extending downward from said ledges; and

a plurality of apertures in said cover that register with said tabs, whereby a plurality of the covers can be stacked with the vertical tabs on a cover extending down into the apertures of a cover that is disposed beneath.

The replacement for claim 2 resulted from the following changes:

2. (Amended) The cover assembly as in claim 1 wherein said top and pressure plate each include one or more ~~laterally~~ longitudinally-extending tabs which enable said cover to be engaged with or disengaged from said microplate by a robotic system.

~~4. The cover assembly as in claim 1 wherein said top includes a ridge extending along its length and central axis, whereby when said cover is engaged with said microplate, said ridge bears upon said pressure plate.~~

~~5. The cover assembly as in claim 1 wherein said cover's first and second sides include downwardly extending tabs which enable one cover assembly to be stacked upon another cover assembly~~.

~~7.A method of removably sealing a microplate, said method comprising the steps of:~~

~~providing a layer of material shaped and dimensioned to removably seal a plurality of a microplate's well openings;~~

~~providing a pressure plate disposed on said layer of material for dispersing a compressive force in a generally uniform manner across said layer; and~~

~~providing a cover disposed on said pressure plate, said cover shaped so as to exert said compressive force on said pressure plate when said cover is removably engaged with said microplate.~~

~~8. The method as in claim 7 wherein said cover includes one or more laterally-extending tabs which enable said cover to be engaged with or disengaged from said microplate by a robotic system.~~

~~9. The method as in claim 7 wherein said cover includes a ridge extending along its length and central axis, whereby when said cover is engaged with said microplate, said ridge bears upon said pressure plate.~~

~~10. The method as in claim 7 wherein said cover includes downwardly-extending tabs which enable one microplate/cover unit to be stacked upon another microplate/cover unit.~~

The replacement for claim 2 resulted from the following changes:

11.(New) The cover assembly of claim 1 wherein said cover top includes a central, longitudinally extending planar ridge portion and lateral and planar portions extending upwardly from said ridge at their inner edges , said sides extending downwardly from the outer edges of said planar portions, whereby the said planar portions and said ridge provide a resilient force that bears downward on said pressure plate and upward on the bottom edges of said microplate.

12. (New) The assembly of claim 1 including longitudinal tabs, extending tabs from said first and second sides, whereby said cover may be disengaged from or engaged with said microplate by displacing said tabs laterally outwardly or inwardly to move said ledges away from or beneath said bottom edges of said microplate.

14. (New) A cover assembly for a microplate, said assembly comprising:

a layer of material shaped and dimensioned to removably seal a plurality of a microplate's well openings;

a pressure plate disposed on said layer of material for dispersing a compressive force in a generally uniform manner across said layer; and

a cover having a top an first and second sides, said top including a central, longitudinally extending planar ridge portion and lateral planar portions extending upwardly from said ridge at their inner edges , said sides extending downwardly from the outer edges of said planar portions and including ledges that extend beneath bottom edges of said microplate; whereby the said planar portions and said ridge portion provide a resilient force that bears downward on said pressure plate and upward on the bottom edges of said microplate.

14. (New) The assembly of claim 13 including longitudinal tabs, extending tabs from said first and second sides, whereby said cover may be disengaged from or engaged with said microplate by displacing said tabs laterally outwardly or inwardly to move said ledges away from or beneath said bottom edges of said microplate.